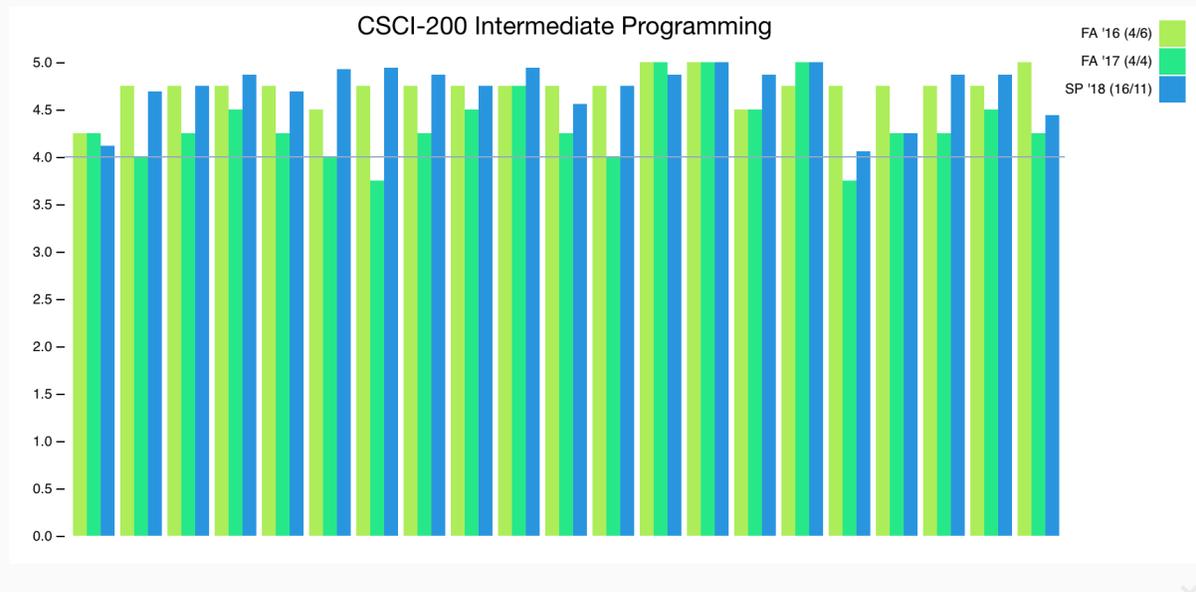# Reflections on Teaching
2017-2018

Fall 2017

CSCI-200 Intermediate Programming (4 out of 4)

Course Evaluation Comments

What assignments, activities or content most contributed to your learning in this course?

1. Homework assignments
2. The homework assignments were great practice

What skill(s) and/or abilities did you develop most in this class?

1. A better understanding of object-oriented programming
2. Java
3. **Being comfortable asking the professor for help because he's always friendly and very helpful**

How could this instructor/course be improved?

1. More frequent or more practical assignments
2. **Slower, more basic examples** to understand concepts

Additional comments or suggestions:

1. Amazing class!

Reflections on the Evaluations

Many of the scores were lower than the other times that I've taught this course. The two statements that were scored below 4.0 were *The course was interesting and/or engaging* and *The instructor returned assignments in a reasonable time frame*. The scores are understandable. There were only 4 students in the class, it was held at 8:00 a.m., and the students were often lethargic. It was very difficult to energize this group. We often had fun with the material, but the energy was often missing. Regarding grading, I continue to work on grading assignments in a more timely fashion.

It was nice to read that a student found me to be approachable!
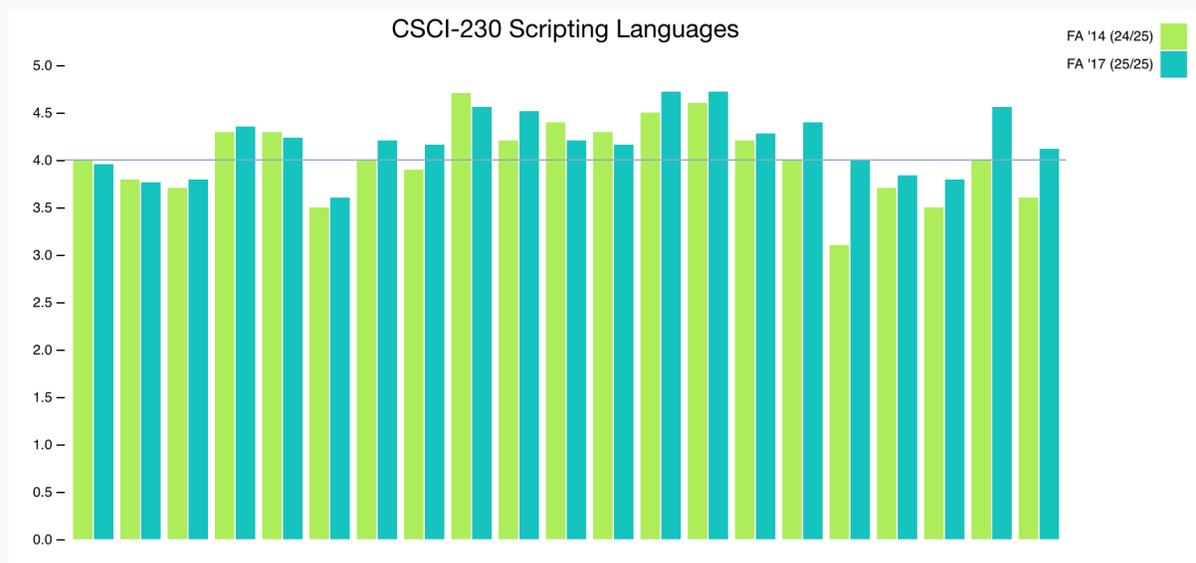
Improvement Plans

In Spring 2018, I made many improvements to the course. I divided the course material into 6 parts. Each part focused on a particular area of the Java programming language. I wrote a set of practice problems and administered an exam for each part. I divided the material up and gave exams on each part because I was discouraged when some of my students would only study the night before an exam. This way, they'd have to study at least on 6 nights.

I hoped to move the programming assignments onto Kattis.com, but due to other priorities I did not port them over. This will take a substantial amount of time, but will be worth it. Kattis gives students immediate feedback on the correctness of their solutions and identifies plagiarism.

I'm considering removing some of the content on Generics so that I can slow the pace down.

CSCI-230 Scripting Languages (25 out of 25)

Course Evaluation Comments

What assignments, activities or content most contributed to your learning in this course?

1. **going over assignments in class helped a lot** because it allowed to me to attack problems from a different perspective
2. I don't know they were all hard
3. the django assignments have been the most helpful with learning in the class
4. I ended up doing a lot of trial and error and insane amounts of googling in order to make my assignments function properly
5. **The in class programming where he walked around and helped** when we needed it
6. The putty assignments contributed to most of my learning in this course
7. **Test Review assignments** on n0code.net
8. Programming Assignments
9. Coding
10. The programming assignments served as a great way to implement the material that we learned in class.
11. the in class tutorials
12. The team activities and the **guided worksheets**
13. Programming Homework
14. We had weekly programming assignments and project in and out of class.
15. Hands on assignments.
16. **Demonstration in class and a simple assignment to learn the concept, followed by a more challenging assignment.**

17. The assignments specifically geared towards Python, I had not used python prior to this class, so those assignments were very helpful

What skill(s) and/or abilities did you develop most in this class?

1. Critical thinking and thinking of other ways or easier ways to do the same thing
2. how to code in python with a lot of little errors
3. not giving up once something does not properly function the first time
4. Programming and problem solving
5. Coding in python and linux
6. Learning how to program in python
   How do debug my programs
   Ability to think through a problem
7. Programming in the python language
8. Learning how to write scripts
9. Coding
10. learned python
11. I learned how to write scripts in python and improved my knowledge of Linux.
12. Using python
13. my understanding of the python language
14. My coding skills improved and I feel like my overall understanding of how programs like putty work. I also like that we incorporated aws into it.
15. Python & Django
16. python
17. Working with linux, learning how to write scripts etc
18. Learning a new programming language.
19. Python Programming
20. more programming experience

How could this instructor/course be improved?

1. Maybe introduce a topic and actually go in depth in lecture about it instead of just having an online tutorial.
2. The big django tutorial was probably one of the most beneficial things to me all semester, I was days behind the class and managed to catch up and even do well on it. More tutorials such as these (or links) could be useful for future semesters
3. n/a
4. **Instead of online tutorials to teach ourselves, being taught the material in class would be beneficial. It's too tough of a subject to walk yourself through the material while gaining a comprehensive knowledge of what you just taught yourself.**

5. **Doing more projects that mimic real life work. Learning how this would be applied in a job setting.**
6. Less weighted homework, more activities to help me understand what I'm doing
7. More frequent assignments
8. Next semester, add a link to barebones VI commands to edit code, would save a lot of time!
9. I enjoyed the rigor of the course, but **the pace did seem a little bit too fast for some of the ISM majors.** If more time were allowed on the assignments, the struggling students might have had more success and less stress.
10. He could actually show us how to do the assignments. Teach us in class on the computers thru more tutorials and not assume that we already know how to do the assignment.
11. Change the teacher
12. less out of class research and more in class explaining
13. I think **more guidance could have been provided in reference to the homework assignments.** At times, it was overwhelming and frustrating.
14. **Don't assign things that you haven't explicitly taught. We don't pay 10k a semester to "Fill the gaps in our knowledge" by ourselves.** We pay to have a professor teach us
15. he should keep it the same way
16. Brighter projector screen. Well defined due dates.

Additional comments or suggestions:

1. **I really enjoyed the class. I was not forced to take this course, because it is not my major, i did it because I truly wanted to learn how to code. And i believe that what i wanted to accomplish and learn in the course, i did.**
2. fun class, love making programs work. There's not much more satisfying than working for hours on something that EVENTUALLY generates the correct outcome. It's all like a giant puzzle made from scratch
3. Great class!
4. **Phenomenal teacher, really wants to see the student succeed.**
5. Great course and instructor!
6. needs to teach better. He does not teach at all in the class. **Needs to take the class at a slower pace.**

Reflections on the Evaluations

The scores were generally better than the first time I taught the class, back in 2014. Only one statement was scored lower than before: *Overall rating of the course* (3.8), which is a bit perplexing given the other scores and my overall feelings about the course (see below). The other scores that were below 4.0 (but greater than the 2014 scores) were:

- Overall rating of the instructor. (3.8)
- The material was covered at an appropriate pace. (3.6)
- The instructor used a variety of activities, assignments, and/or approaches. (3.8)
- The instructor explained course material in an effective manner. (3.8)

Some students expressed frustration that I didn't have a traditional lecture in this course. Some thought the material was covered to quickly, others too slowly. Some students would have preferred if I more clearly described the assignments before letting them begin.

Improvement Plans

All of the students had previously taken Introduction to Programming, so this class was primarily a reiteration of the material in the prerequisite, just in a different language. I didn't teach it like a traditional class because it would be far too boring to sit through a class and listen to me tell them all of the different ways to, say split a string.
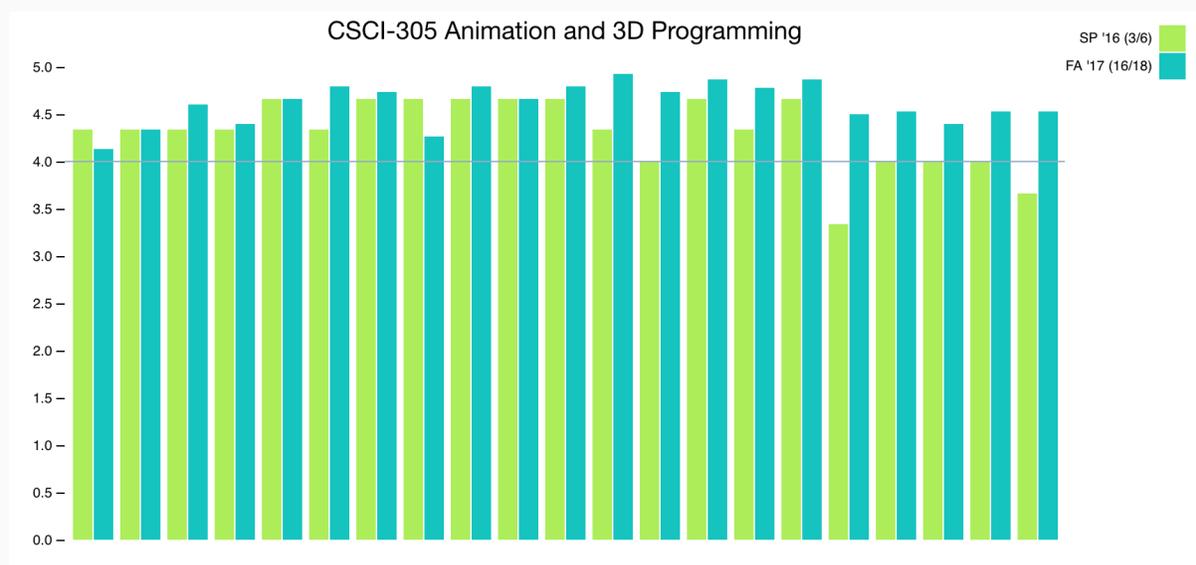
This semester, rather than lecture about the Python programming language, I used a lot of active learning activities. This was not appreciated by a few ISM students who have difficulty applying knowledge.

We also discussed system administration at the beginning of the semester and how to create a Django website using Python at the end.

I'm not yet satisfied with this course. I don't think I will change the fundamental approach to my pedagogy for this class, but think I can do a better job at introducing new concepts, designing some of the active learning activities, and describing the assignments.

I will also remove the Django activity at the end of semester and replace it with other real world uses for the Python programming language, possibly introducing some Python libraries for visualizing data or automating tasks.

CSCI-305 Animation and 3D Programming (15 out of 18)

Course Evaluation Comments

What assignments, activities or content most contributed to your learning in this course?

1. every assignment
2. The babylon tutorials/demos were very interesting and inspired me to create a lot of the animations that I did! It was a great resource!
3. I liked the 3D assignments and I think the tutorials were helpful.
4. The overall class assignments. The demos and the final project.
5. The homework is what helped me learn almost everything, but the demos you did helped clear things up as well
6. The final demo was super fun
7. I think the blender assignments gave me the most knowledge of 3d design.
8. The assignments.
9. The weekly assignments were the bread and butter of this course. They are the cornerstone of course learning.
10. All of the assignment helped further my knowledge of the material and I liked how it all built into the final project.
11. animation assignments

What skill(s) and/or abilities did you develop most in this class?

1. web programming / using babylon js
2. I learned how to create a basic scene including skyboxes, sprites, meshes along with various other actions! I also learned how to pull from other sources to use in my code such as pictures, textures, and other files.

3. I learned how to program in Babylon and improved my JavaScript.
4. Babylon js and Blender animation language and program.
5. On top of BABYLON.js and Blender, I actually learned a lot of javascript this semester, something I've been meaning to do for awhile.
6. How to design in blender
7. Ability to use Babylon.js and Blender
8. Some javascript skills, and familiarity with Babylon.
9. I developed everything from programming animation to story-boarding.
10. Babylon js and blender knowledge plus some minor html and css
11. babylon programming

How could this instructor/course be improved?

1. It was very difficult to keep up with the class since it was mainly "playing" with code. Thus, I found it challenging to get at least half the requirements on any given assignment working. I tried to use the babylon tutorials but they never seemed to give the output that was presented on their demos. **I would like there to be more lectures on how to do a certain animation because I rarely figured it out on my own.** I also did not understand the Blender portion of the semester simply because I had to rely on youtube videos to get me through it. Thus, when something went wrong on my end, I spent more time trying to sync with the video by rewinding and clicking other videos rather than it being a smooth process.
2. **I think that if the tutorial is not very good or has little information then we should go over how to do it in class.** I think that would be helpful. Also, having more time for the final project would be helpful.
3. None, maybe more time of the class.
4. I really enjoyed this course. I can't think of any way to improve it.
5. **I would suggest more of Blender** and less of Babylon**, considering Blender skills are probably more in demand and can be easily transferred to other 3d design software.**
6. grade/return assignments faster, and maybe have less self-teaching and more instruction
7. Please, please, please don't make the next class learn Blender in two weeks. Switching to an entirely different system and then having to figure out how to export and import took a toll on my sanity this semester. **Maybe do a basic Blender scene early on in the term to expose the students to it** before launching into donuts. It felt like we had to play catch-up just to get it to work.
8. **Would've like more info on how to actually program an animation and have the camera follow the scene.**
9. N/A

Additional comments or suggestions:

1. I really enjoyed the course!

2. I REALLY LIKED THIS COURSE EVEN THOUGH this was harder than android
3. I loved the course, can't say I regret taking it
4. Great course! Enjoyed it!
5. I loved the class and I learned so much. I can't say whether I'll ever use these skills professionally, but I will (probably) never regret taking this course. Thanks for the fun times, McG.
6. **I feel like this class will only improve as the professor learns more and has time to refine to the course.**

Reflections on the Evaluations

The response rate for the evaluations was good (16/18) and all of the scores were above 4.0.

The students supplied many useful comments including to

- Introduce Blender earlier
- Supplement some of the tutorials with traditional lectures
- Spend more time on animation

The last student comment was spot on: as I learn more and time goes on, I'll refine this course to make it even better – and probably write a book on using Babylon while I'm at it.
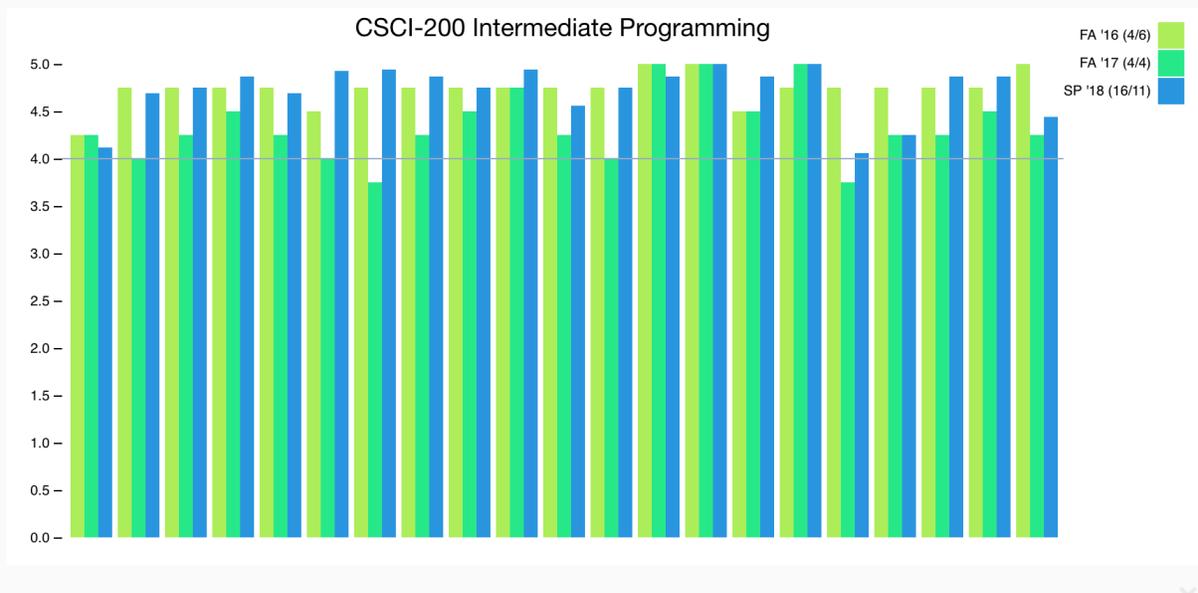
Improvement Plans

The students are right! I aim to

- Introduce Blender earlier
- Supplement some of the tutorials with traditional lectures
- Spend more time on animation

Spring 2018

CSCI-200-1 Intermediate Programming (16 out of 20)

Course Evaluation Comments

What assignments, activities or content most contributed to your learning in this course?

1. I learned the most from the exam review. There were 6 exams in this course, so we had 6 reviews, and for each one I was able to code the review on Putty and make sure I was answering correctly. I also took a lot of notes in this class and they helped me to pattern match.
2. The labs
3. The labs even though some took me all weekend made me learn the material and engrave it in my head. Also when we would do practice problems during lecture and I could see what i was doing wrong helped a lot, especially with the later material.
4. The assignments and exam reviews really pushed me to study and to look up things that I did not understand fully. It pushed me to learn new ways of programming.
5. Exam review problems
6. Multiple tests helped a lot.

1. Labs, Notes
2. Study groups are a great idea.
3. Everything
4. The exam reviews were helpful towards the end of the semester. The labs also contributed towards me getting an understanding for the material
5. note taking was crucial, without it i would have failed.
6. **This is the first course where I have felt engaged in EVERY lecture given.**

7. The labs and my study group allowed me to understand the material better.

What skill(s) and/or abilities did you develop most in this class?

1. I developed critical thinking skills; **we were given very trivial examples in class and then applied this knowledge for the harder examples** needed in lab and on exams. I also learned about how to manage time and really study.
2. Ability to program
3. **I went from struggling in intro to programming to feeling great about the material and loving to learn new things everyday I came in to class.**
4. Programming skills
5. I learned a great deal about the Java programming language.

1. Java Coding
2. Coding
3. I know how to be a code monkey
4. I was able to learn Java
5. taking notes on actually everything
6. I have become a better coder, and fostered good relationships for the rest of my BC career.
7. I developed the ability think critically and the ability of understanding the java coding language.

How could this instructor/course be improved?

1. The course could be improved if the instructor was in his office more, and during his office hours. It seemed as though most times I tried to visit his office during his office hours for help, he was in a meeting somewhere else or he just was not there. I did not want to talk to him during his office hours most times anyway because he was not nice in his office. He treated me like I am dumb sometimes because I did not understand the explanation, and was hesitant to help for some reason. The course could be improved if maybe there was one less exam. It felt like I was just learning to test sometimes.
2. great course
3. **I really did not enjoy the 6 tests**. I have slight testing anxiety so having 6 tests really **caused my anxiety to go into overdrive**. It seemed like almost every week we had a test. It was nerve wrecking.

1. none
2. It's good how it is.
3. Nothing, is perfect
4. N/A

5. no idea
6. Nothing. McG is a great instructor who strives to foster learning over anything else.
7. The reviews for the tests could be given all out on n0code at the same time. Also, the reviews could stay set in stone and not be changed or added to.

Additional comments or suggestions:

1. I really like Dr.McGregor. This was my first semester having him, and I was very hesitant about the course because my intro to programming course was not informative at all. McG provided a lot of examples for us to learn with, and the exams were basically applications of the examples we were given in class. I felt as though I learned so much about programming and Java this semester, which will be useful in my career and future classes. We had a lab cancelled before a break which was nice, but the lab was not cancelled until 10 minutes before lab time, when I could have already been home. Overall, McG is really great and I am happy I had him.
2. **Best professor I have had yet, he truly cared if you got it and would put in endless effort to help if you showed effort to, cares about you and wants you to achieve great things, this class made me fall in love with my major and made me feel better about my future after college.**

1. Spicy Scottish Man
2. great class! i enjoyed it thoroughly
3. **This was a wonderful cource filled with more information than I could have previously imagined, yet it breezed by without me realizing how much I had learned because of the fun I was having while learning.**
4. I really liked this class and it was very fun and enjoyable to take.

Reflections on the Evaluations

Teaching this course was one of the most enjoyable experiences that I've ever had! My students were always, literally always, engaged, inquisitive, and hard working! It was great! This class

The scores for this course were very good – all above 4.0, including *The instructor returned assignments within a reasonable time frame.* I was deliberate in getting them graded and returned in a timely manner.

One student had a difficult time in the course. I spoke with the professor who taught the prerequisite, CSCI-105, and he reviewed her grades and admitted that the only reason she passed CSCI-105 was because she did extra credit. This is a great example for why I never give extra credit.   I believe that if a student can't perform well enough on regular assessment tools to pass a class then they should not pass the class.
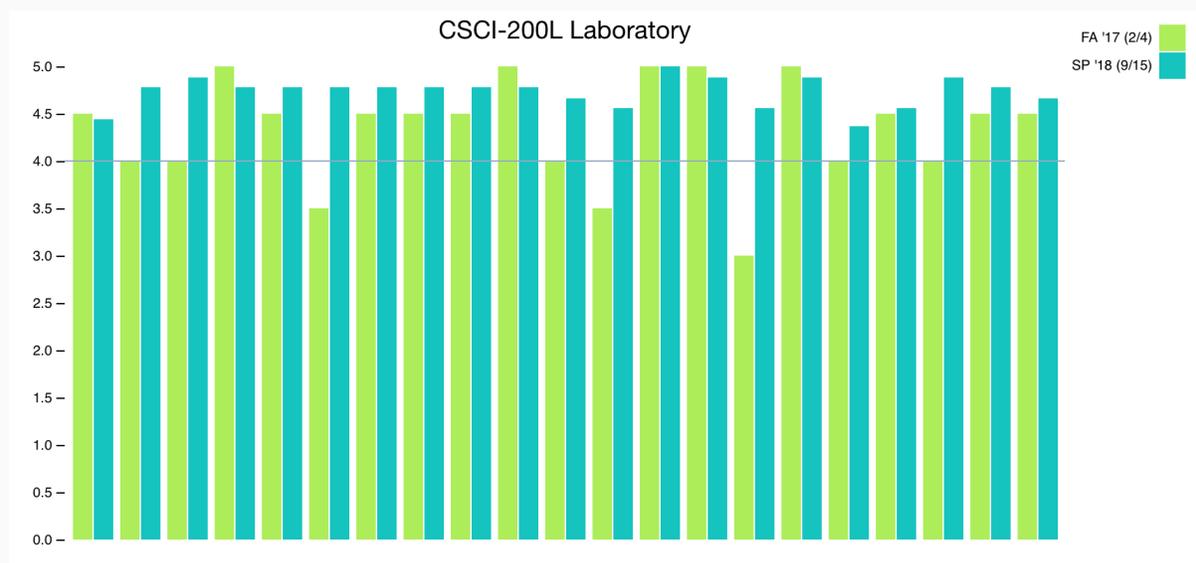
I appreciate that a student, in her *Additional comments* stated "I really like Dr.McGregor… Overall, McG is really great and I am happy I had him." But I saddened to read that the same student felt insulted. She wrote "He treated me like I am dumb sometimes because I did not understand the explanation". I don't ever recall treating her this way, but I've taken her comments to heart.

I also acknowledge the student who has test anxiety. While I am concerned about students test anxiety, I think this approach is necessary for this class. Additional time in class to help prepare students for the exams may help and be warranted.

Improvement Plans

The course went well. I anticipate removing some of the content on generics. It is not necessary at this level and will free up some time to slow things down a bit and allow for additional scaffolding.

CSCI-200L-1 Intermediate Programming Lab (9 out of 20)

Course Evaluation Comments

What assignments, activities or content most contributed to your learning in this course?

1. Lab
2. The labs were useful and practical. They helped me to study for exams and to learn the material.
3. Mostly the labs that were assigned throughout the semester

1. the labs
2. Review days

What skill(s) and/or abilities did you develop most in this class?

1. System.out.Println("Java Coding");
2. I learned to think critically mostly; I had to use the notes I had and apply them to the labs.
3. Enhanced my abilities to code in the Java language

1. ability to program
2. Gained critical thinking skills in programming

How could this instructor/course be improved?

1. none

2. The course could be improved if labs were returned in a timely fashion. I still do not know how I performed on any of the labs. Sometimes I felt as though Dr.McGregor treated me as if I was dumb. I needed him to reword the explanation but he did not seem willing.
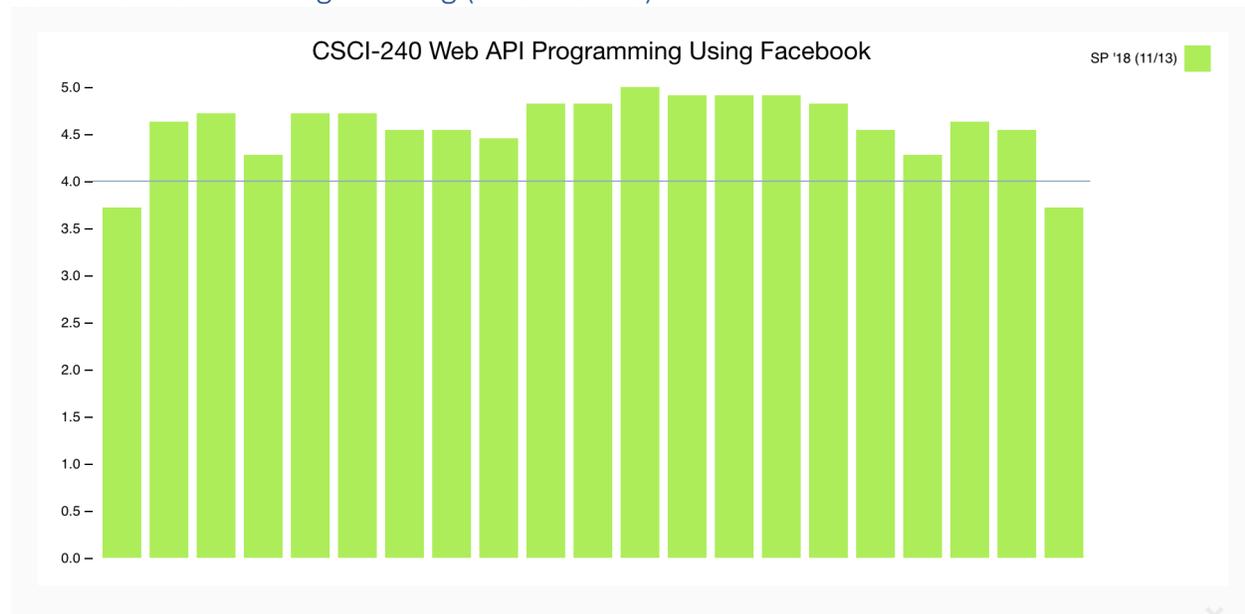3. Not much, the professor himself was exemplary.

1. great course
2. N/A

Reflections on Evaluations

The labs provide students with time to develop code with me present.

Improvement Plans

No improvements planned at this time.

CSCI-240 Web API Programming (11 out of 13)

Course Evaluation Comments

What assignments, activities or content most contributed to your learning in this course?

1. The homework assignments made a big difference
2. While it wasn't exactly assigned I went on my own and did a graph about all the states using what I learned in class and I learned a ton doing it
3. A lot of web program that we made, but the notes that were on the website helped more than anything they were very clear and had a lot of really good knowledge
4. Quizzes, and homework assignments helped to solidify the content that we were learning. It stretched what I knew and included a new library to use which makes development movement easier.
5. The online programming assignments
6. **The early assignments in this course were constructed like a puzzle and forced me to learn the subject at hand (HTML/CSS) in a new and unique way.** That helped me retain a lot of the information that was being taught at the time.
7. The basics where a little bit boring because i already knew a lot about it. But the d3 part was completly new for me and really interesting.
8. I believe that the labs were a great way to learn as we would be taught something and we could apply it right away. It also gives us something to show for that we learned.
9. The assignments that we completed outside of class contributed most to my learning in this course because it covered the material we learned in class. I liked how the outline and setup of the code was provided to us on Dr. McGregor's website and it was up to us to find our own data and make it our own setup. This really contributed to my learning in this course because I was able to learn the code first and then implement the code myself.

10. I think the homework in this class was helpful towards learning the content as well as allowing creative freedom and choice which added interest to the assignment.

What skill(s) and/or abilities did you develop most in this class?

1. Learning fast then putting it to work immediately
2. I now know how to use d3 in alot of ways to help make websites all pretty pretty. Even if I never get a job using javascript, html, or css this course will be helpful
3. How to write in java script
4. Troubleshooting web code
5. The ability to code a website and materialize data in numerous ways
6. I learned how to code in HTML/CSS and JavaScript.
7. the usage of frameworks from other people and how to learn to use them
8. I developed a better understanding of CSS, javascript, and HTML along with learning d3.
9. I learned how to make dynamic visualizations using HTML5, CSS3, and JavaScript. I also learned the d3.js library.
10. The ability to use data to creatively and effectively make visualizations on a web page.

How could this instructor/course be improved?

1. Maybe **move a little bit slower**
2. The beginning was sooooo slow but by the end it was more fun, and the snake assignment was super hard and I never figured it out. Also **do something regarding "onmouseover" or "onclick" on the svg elements** would've been fun to do in class (I did it on my own but learning it in class would've been easier)
3. Perhaps **a faster pace through material**, but it was still a good rate for everyone's learning Maybe include another type of web design software usage (other than the sftp jetbrains software we used which was great)
4. **I wish we spent a lot less time on d3 and spent more time on basic JavaScript and exploring social media platforms and their API's like Facebook and YouTube.**
5. **Towards the end we did a lot of visualization assignments using the D3.js library. This caused the course to become redundant and boring for me. In my opinion, after selection we should've done only a couple of those data visualizations then moved on to a different topic.**
6. because it is an webapi class it would maybe be a good idea to use one assignment to **make the homepage**, where the assignments will be put on, pretty.
7. I really liked the small assignments, but I believe it would be nice to have a few week long larger assignments where you would have **to set up your own website** and apply those things. That way you can have a nice website and be applying what you learn.
8. I cannot think of any way that this course could be improved. I have taken previous courses with Dr. McGregor and this course is by far my favorite course I have taken with him. Dr. McGregor truly cared about student growth in this course.

9. I think the structure of the class was very well done but **I would have like to have been graded more often** so I could keep track of when I needed to change things and when I could continue what I was doing.

Additional comments or suggestions:

1. The Syllabus describes the course as working with APIs and **JQuery** but we only worked with D3. Overall 11/10, would make an all the lines in a graph and then learn that you can just use d3.axis again.
2. More updates on assignment solutions
   Include data sources for use on assignments. Most of my coding time was spent trying to find a good source (I can see why you would try to separate the data range however)
3. Great course, learned a lot
4. I would've liked to do an assignment using **Youtube's API** or Google's**.** I was also **looking forward to monitization**.
5. I don't know, it was a good course and I was taught stuff that'll be useful, thanks.
6. I really enjoyed this course and it has sparked my interest in possibly pursuing an independent study in this subject area next year.

Reflections on Evaluations

All of the scores where above 4.0 except *The instructor provided feedback on assignments that fostered my learning* (3.7).
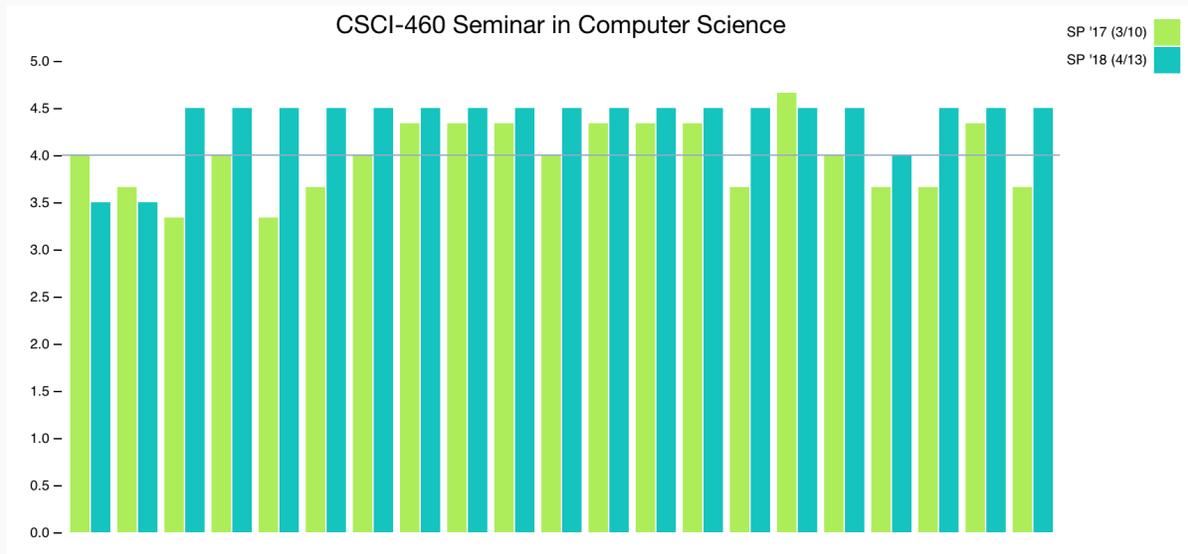
Many students commented on how they would have like to explore other API, not just D3.js. Some of the APIs they suggest are YouTube, Facebook, and JQuery. Other students suggest teaching how to use events and monetization code.

Improvement Plans

All of the student's work is published on a publicly facing web page. To assess their work, I will develop grading sheets like I use in CSCI-305 Animation & 3D Programming. These will give the students more feedback on their work and my assessment of it.

I agree that we spent far too long on D3.js. Next time, I intend on spending less time on D3.js and more time on Boostrap, JQuery, and other APIs. I'll also add lessons on events and monetization.

CSCI-460 Computer Science Seminar (4 out of 13)

Course Evaluation Comments

What assignments, activities or content most contributed to your learning in this course?

1. The whole project taught me a lot about web design, development and dealing with unreliable team members.

What skill(s) and/or abilities did you develop most in this class?

1. Dealing with terrible team members and php/sql usage to populate websites.

How could this instructor/course be improved?

1. Allow for **smaller team sizes** or relieve accountability for the team leader. One hardworking person shouldn't be afraid to fail because his team members didn't care enough to do their fair share.

Additional comments or suggestions:

1. Have the **contribution worksheets start at the beginning of the semester** and be more clear about the requirements for it. Be more clear on what you want the presentation to be like.
2. I really liked how software engineering combines with senior seminar to create one project. The only thing i would change is the size of the groups. 8 people per group leaves 4-5 group members with little responsibility. I suggest 4 per group, two coders and two ISM. That way there is more accountability.

Reflections on Evaluations

The scores and comments were all positive, though only 4 out of the 13 students in the course completed the survey.

Improvement Plans

The course did not go as well as I had hoped. Professor Stevens and I met with all of the teams on a weekly basis to assess their progress in developing their software and to answer questions.

Two of the three teams did well and produced working software. One was a stock app and the other was a club event app.

The third team did very little throughout the semester and all of its members failed the course. They were all required to register for the course again during May term and complete an independent project.

We intend on teaching how to work on a Scrum software management team, and how to use GitHub to manage tasks to better help teams stay on track.